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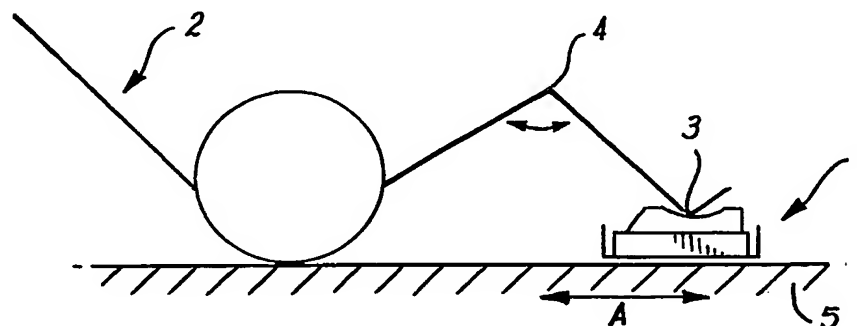
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: EXERCISER



(57) Abstract: In order to provide rehabilitation, physiotherapy and maintain suppleness, an exerciser (1, 21, 31, 41, 51, 91, 100) is provided in which a skid (22, 42, 92) with a slide or movement surface is provided on one side and a grip (23, 43, 93, 101) on the other in order that a user can perform controlled oscillatory motions by resting a limb upon the grip. In such circumstances, for example, bed ridden patients recovering from hip or other joint replacement surgery can initially conveniently perform oscillatory motions, the extent of which can be progressively controlled to improve mobility. The exerciser can also be used for recuperative muscle development and maintenance of suppleness with regard to limb and joint movements.

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB2004/000019

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61H1/02 A61H1/00 A63B23/00 A63B23/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61H A63B A63C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/082150 A1 (SMITH DETLEV F) 27 June 2002 (2002-06-27) paragraphs '0040!-'0042!,'0049!-'0051!; figures 1-7,14-17	1-19,22
X	US 2002/183661 A1 (YOO DONG-HOON) 5 December 2002 (2002-12-05) paragraphs '0013!,'0017!; figures 1-3	1-11, 13-17, 22-27
Y		28,29
X	GB 1 112 697 A (HUGUETTE DREUX BOUCARD) 8 May 1968 (1968-05-08) page 2, line 9 - line 18; figures	1-8, 13-16,20
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the International filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the International filing date but later than the priority date claimed

"T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"Z" document member of the same patent family

Date of the actual completion of the International search

16 April 2004

Date of mailing of the International search report

04/05/2004

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB2004/000019

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 22 44 005 A (BRANDT BV M) 30 August 1973 (1973-08-30) page 4, paragraph 3 -page 7, paragraph 1; figures	1-11, 13-18
X	US 2002/128134 A1 (HUANG MING-CHIH) 12 September 2002 (2002-09-12) paragraph '0009!; figures 1,2	1-8, 13-16, 20,22-27
X	US 5 730 690 A (GUIDRY DON D) 24 March 1998 (1998-03-24) column 3, line 54 - line 62; figures 5,6	1,3-8, 14-16
X	DE 19 36 435 A (PRACHER ERNST;BUECHL GEORG) 28 January 1971 (1971-01-28) page 4, paragraphs 6,7; figures	1-11, 14-16
X	US 3 622 172 A (GOODWIN CHARLES W) 23 November 1971 (1971-11-23) column 1, line 62 -column 2, line 39; figures	1-12,14, 23-25,27
Y	US 1 824 920 A (LEON NOVAK) 29 September 1931 (1931-09-29) page 1, line 27 - line 31; figures	28,29

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2004/000019

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 21,22(in part),30,31
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International Application No. PCT/GB2004 /000019

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 21,22(in part),30,31

It is not comprehensible which structural features should be defined or implied by the wording "the grip is shaped to reciprocally engage a limb contour" used in claim 21. Thus, claim 21 is so unclear that a meaningful search cannot be performed for this claim.

Consequently, claim 22, which is dependent on claim 21, has been searched as if it were dependent directly on claim 1.

Claim 30 does not comply with Rule 6.2(a) PCT and has not been searched.

Claim 31 referring to "any novel subject matter ... whether or not within the scope of or relating to the same invention as any of the preceding claims" likewise is so unclear that a meaningful search is impossible.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB2004/000019

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2002082150	A1	27-06-2002	NONE	
US 2002183661	A1	05-12-2002	NONE	
GB 1112697	A	08-05-1968	FR 1482904 A	02-06-1967
			BE 695413 A	14-08-1967
			CH 447904 A	30-11-1967
			DE 1578552 A1	15-04-1971
			LU 53161 A1	10-05-1967
			NL 6704029 A	25-09-1967
DE 2244005	A	30-08-1973	NL 7202388 A	27-08-1973
			BE 795552 A2	18-06-1973
			DE 2244005 A1	30-08-1973
			FR 2173180 A1	05-10-1973
US 2002128134	A1	12-09-2002	NONE	
US 5730690	A	24-03-1998	US 5584787 A	17-12-1996
DE 1936435	A	28-01-1971	DE 1936435 A1	28-01-1971
US 3622172	A	23-11-1971	NONE	
US 1824920	A	29-09-1931	NONE	